

OSHHPD Data and Public Health Surveillance

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Public health surveillance

- Standard, continuously gathered information on health and disease in a population
- Public health policy made without surveillance is blind, wasteful, often ineffective or worse
- Sources of public health surveillance
 - Death certificates
 - Patient records (ED and Inpatient)
 - Registries (e.g., California Birth Defects Registry)
 - Surveys (e.g., Behav. Risk Factor Surveillance Survey)

What is the special value of patient data for surveillance?

Can't we use data on deaths data to guide prevention efforts?

“To base public health decisions on mortality data alone is epidemiologic malpractice.”

Steve Helgerson, MD

Montana State Medical Officer

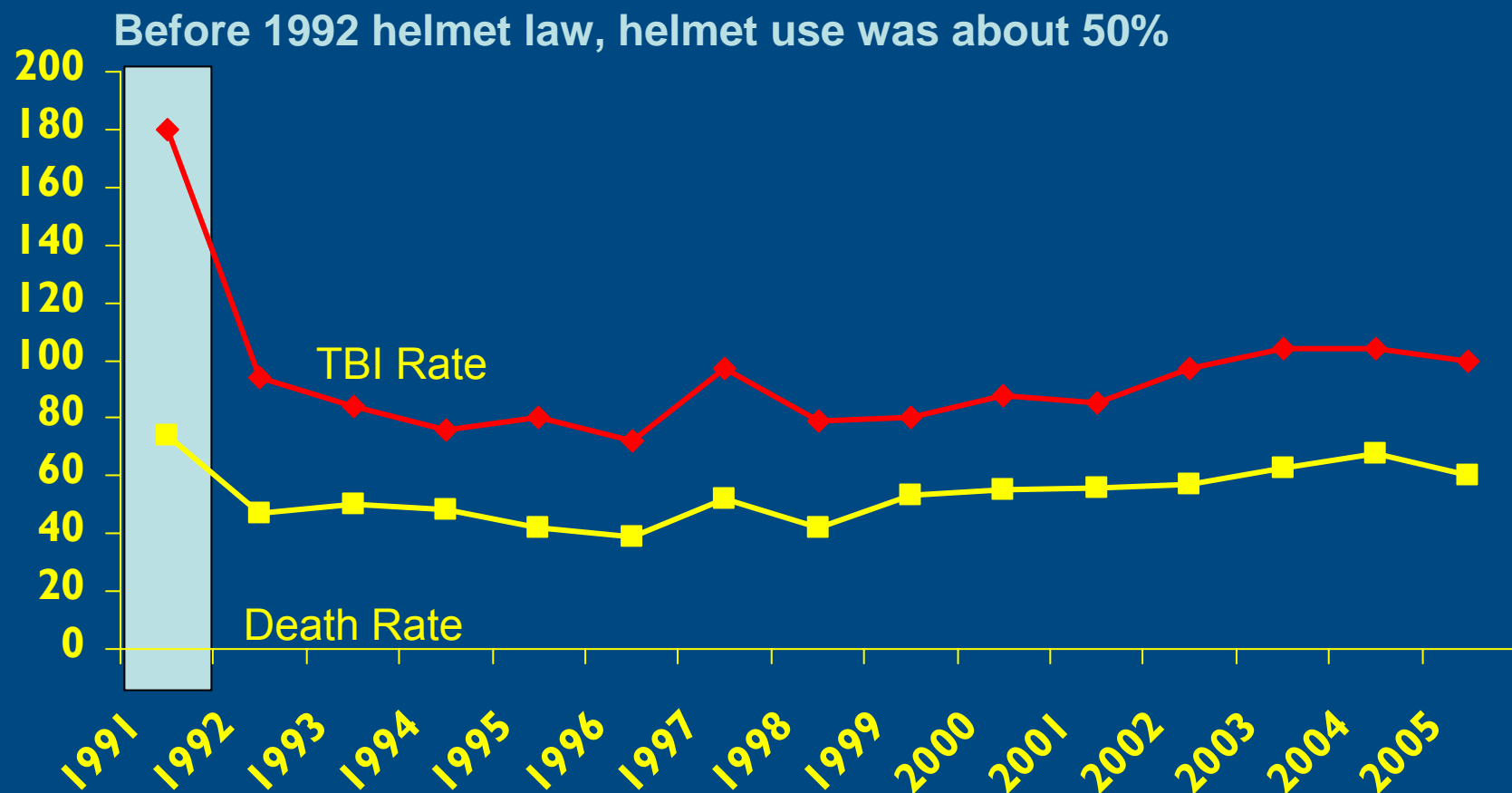
Illustrate this with E-coded Patient Records

- E-codes capture the “external cause of injuries, e.g., assault, fall, car crash could cause a facial fracture.
- Inpatient began 1991
- ED began in 2005

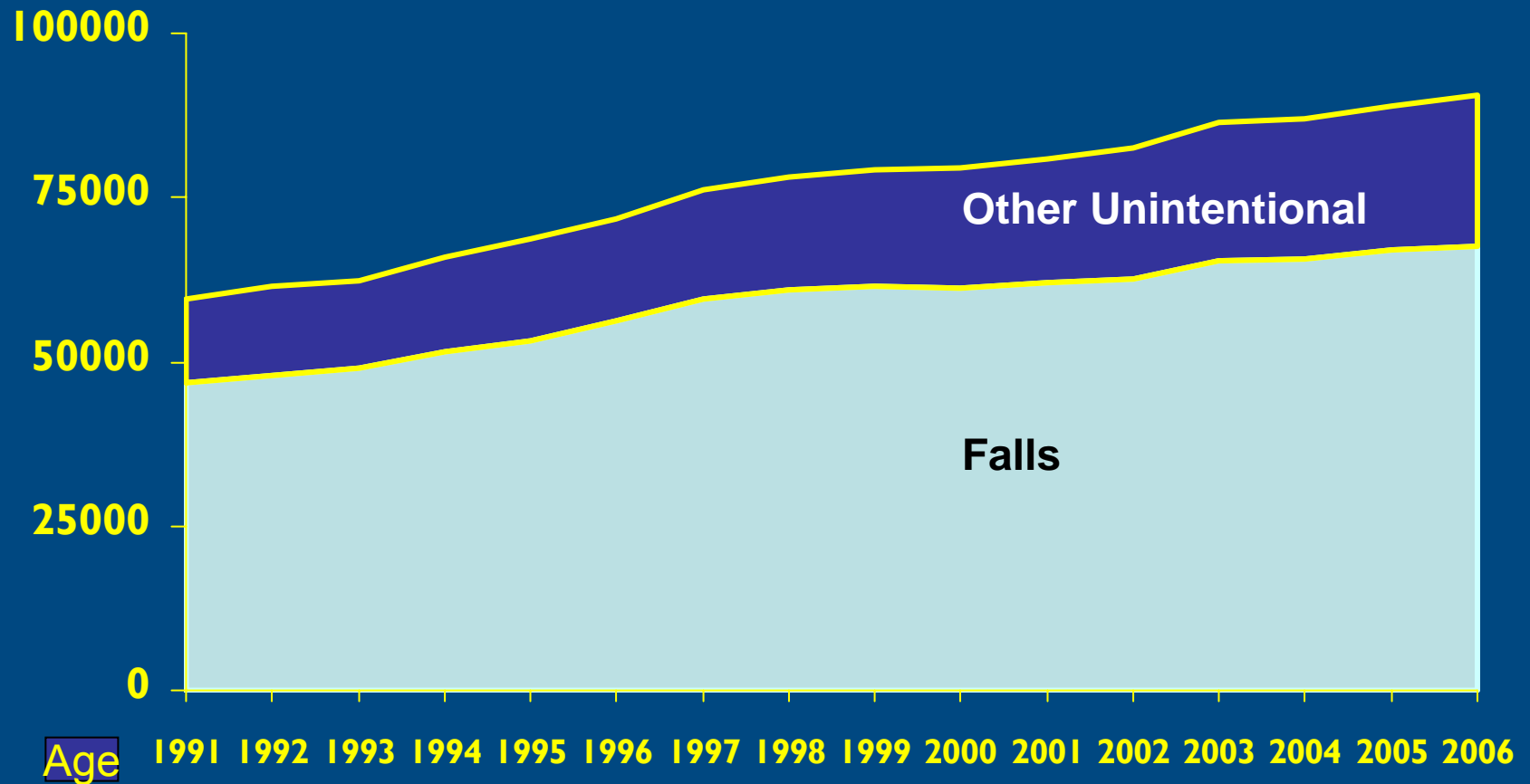
Three ways to use inpatient data

1. Track trends
2. Describe severity and risk patterns
3. Combine or contrast with other data

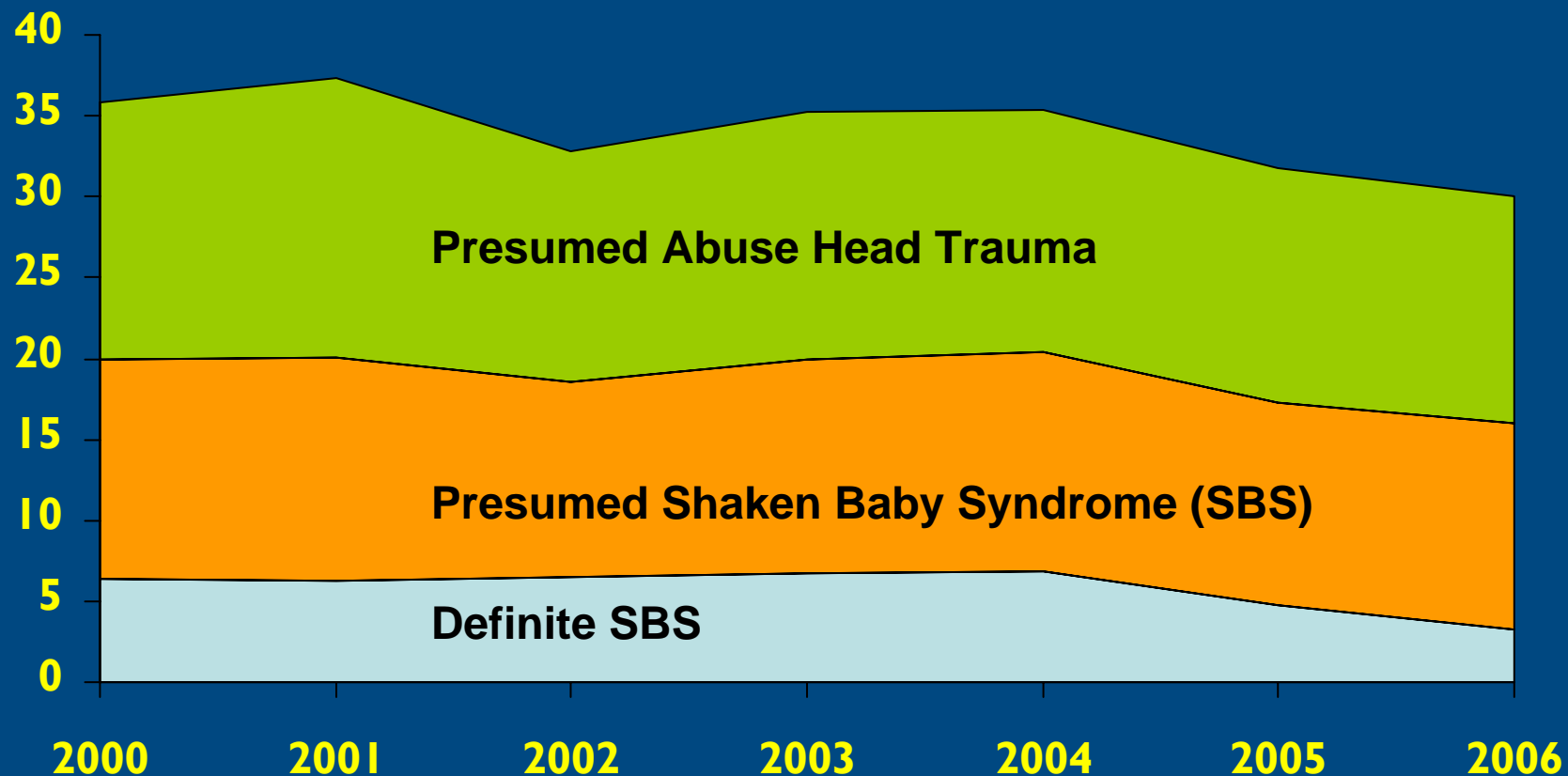
Trends: helmets do more than save lives: Motorcycle Death Rate and Hospitalized TBI Rate per 100,000 Registered Motorcycles



Trends: Falls versus other unintentional injuries, age 65+ years, 1991-2006, California

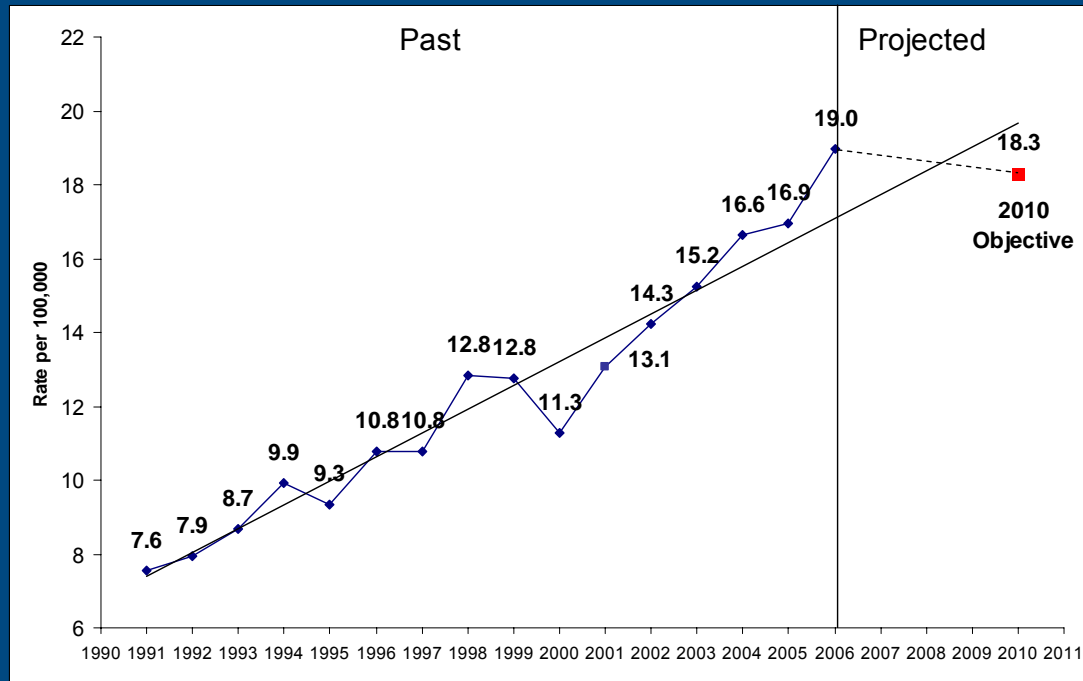


Trends: abusive head trauma hospitalization rates, by 3 tentative CDC definitions, age <2 years, California 2000-2006



Trends: Core Capacity Grant goal-setting

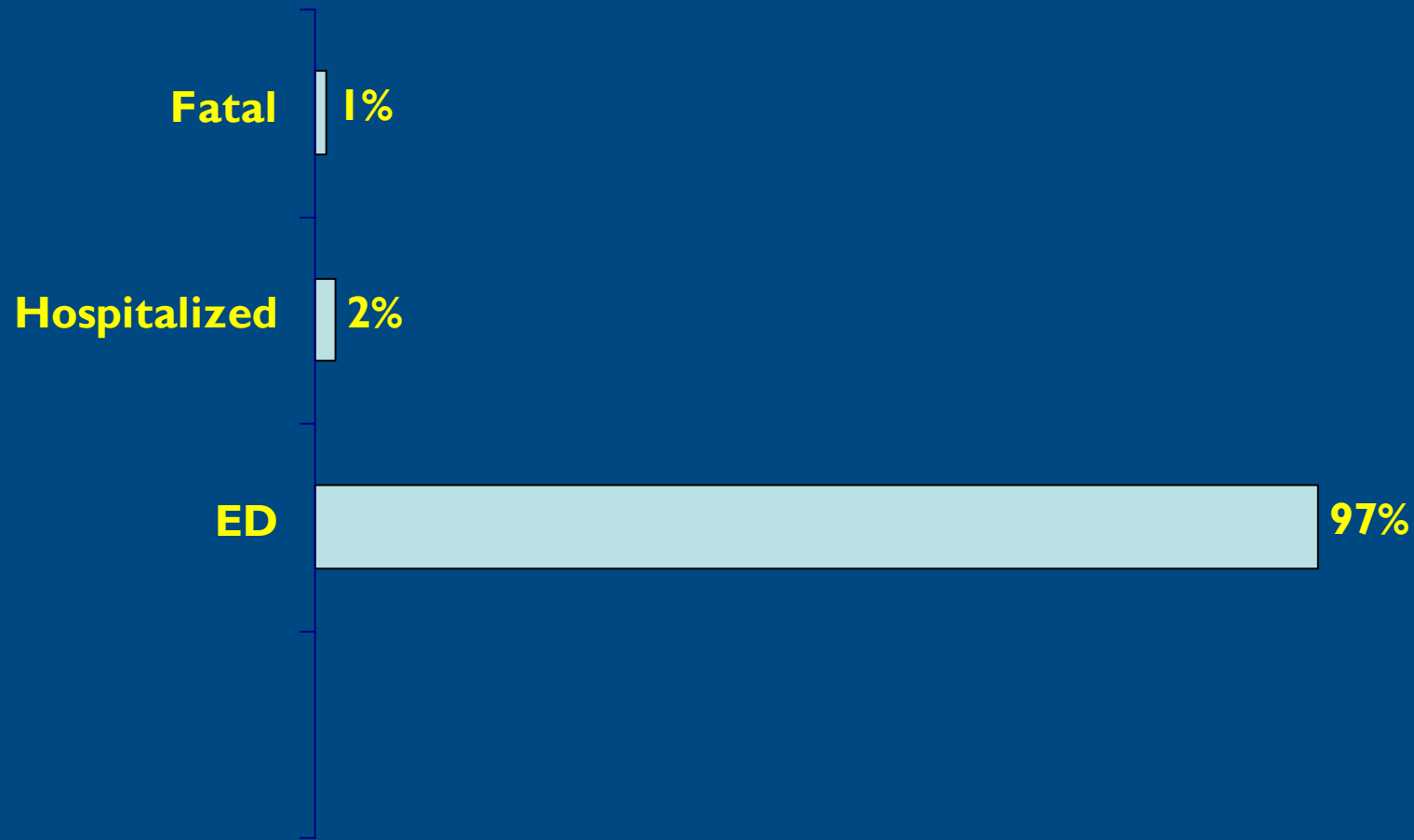
Objective Tox 2: Reduce nonfatal accidental poisoning (E850x) rate for adults 65 years and over to 18.3.



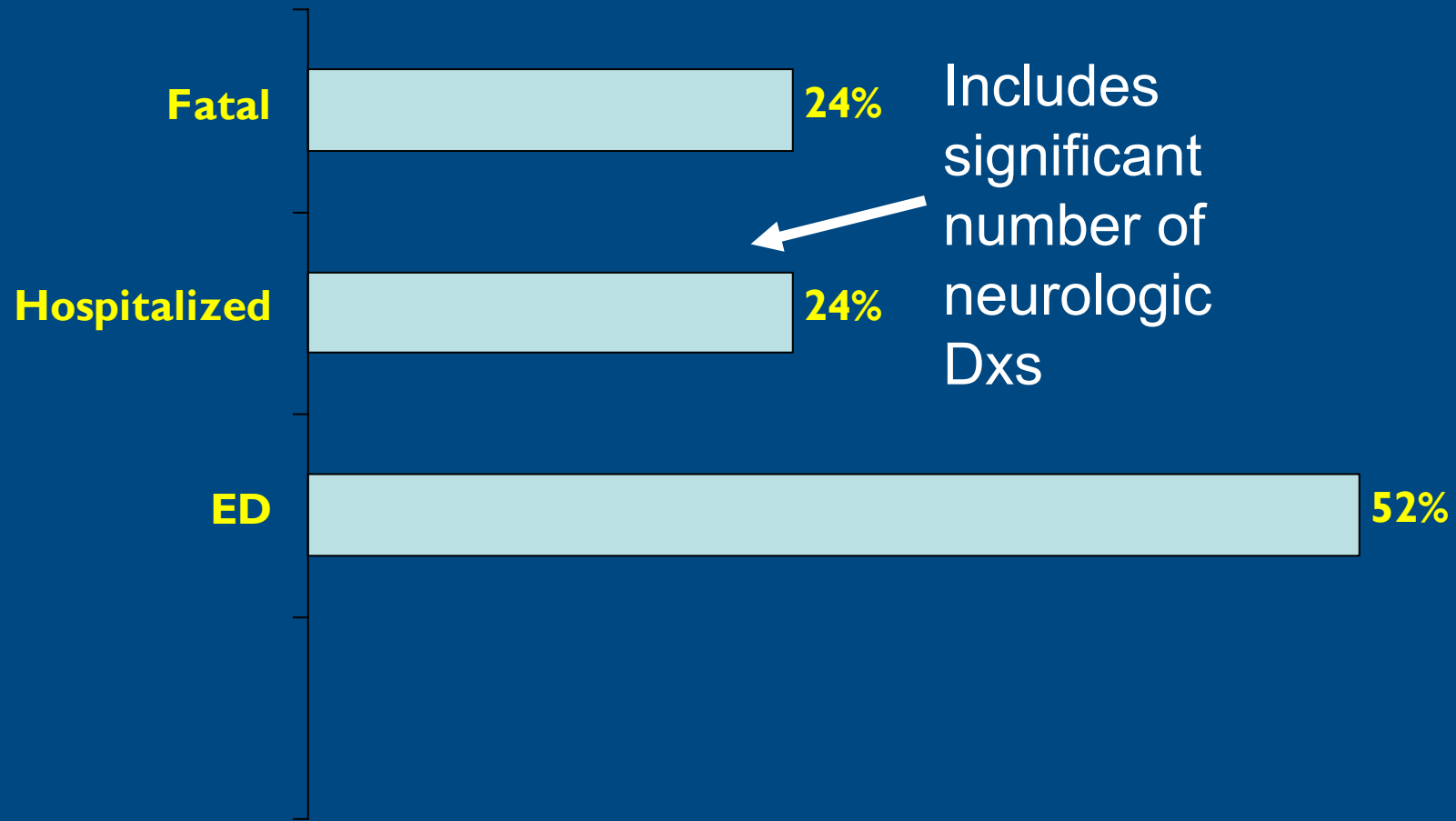
Describe: general surveillance of all types of injuries in California (2006)

Deaths	17,000	
Hospitalizations	249,000	
ED Treatments	2,002,000	

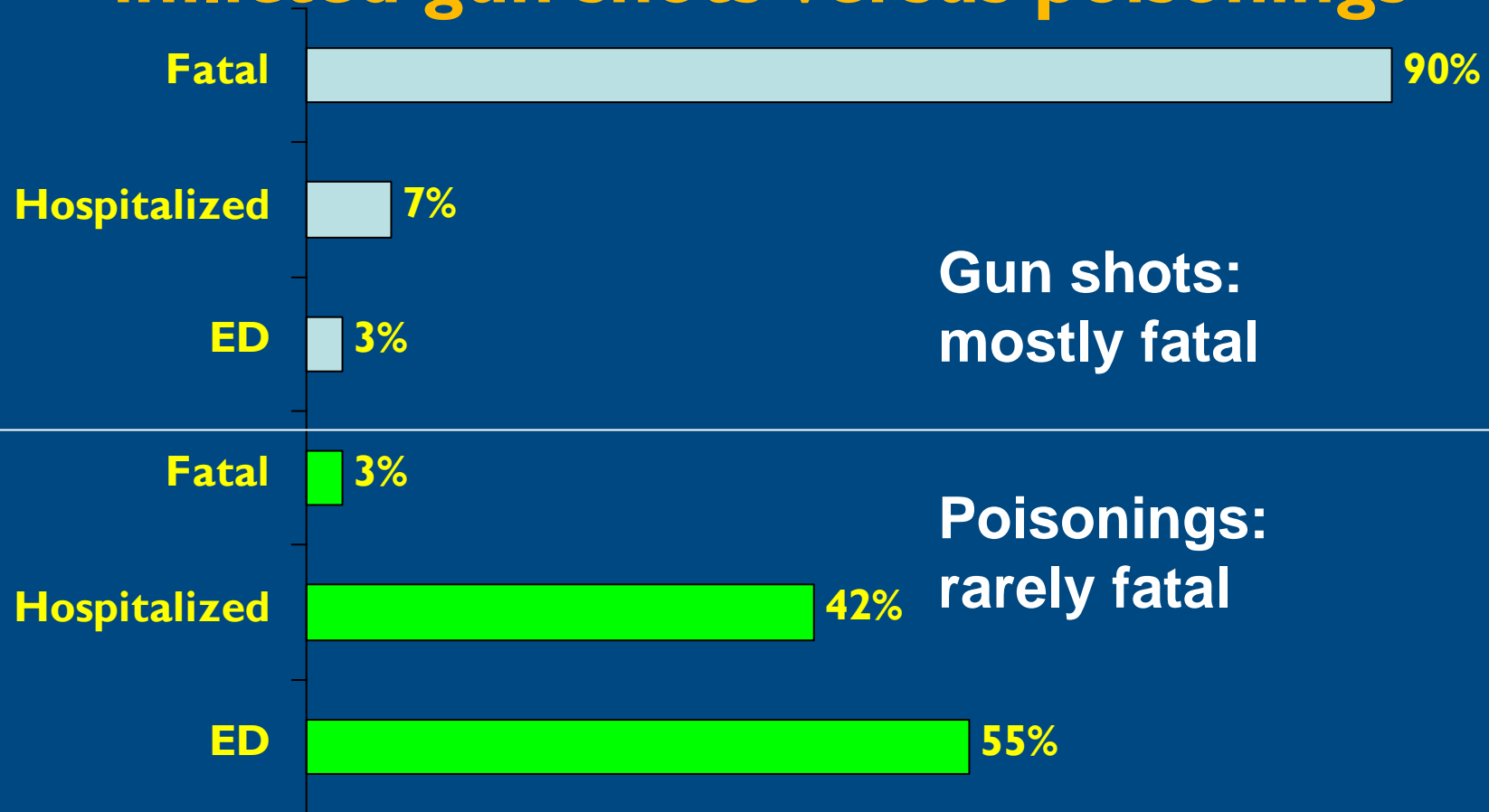
Describe: nonfatal injuries are sometimes the real issue. ED-treated unintentional cutting injuries



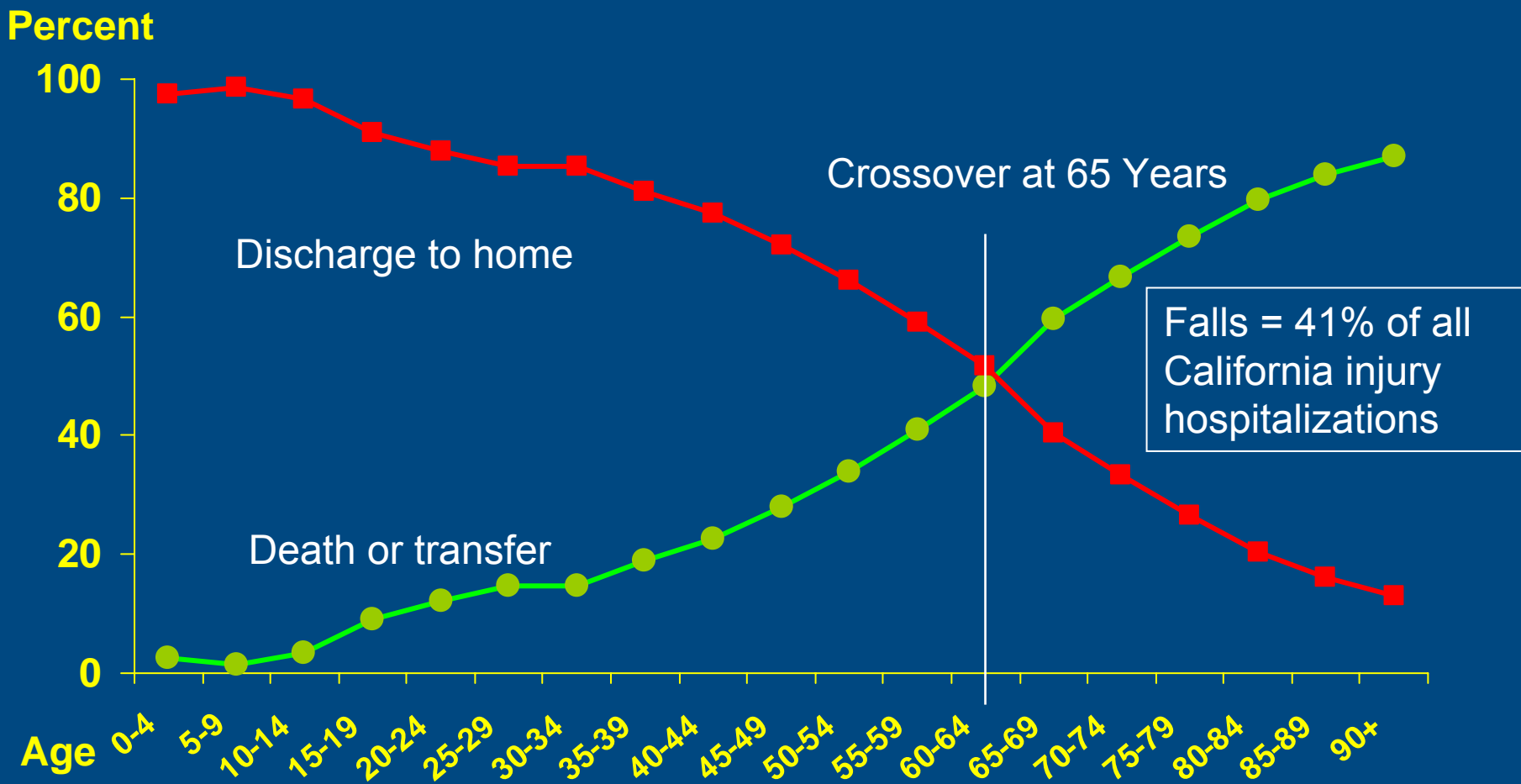
Describe: drownings versus near drownings



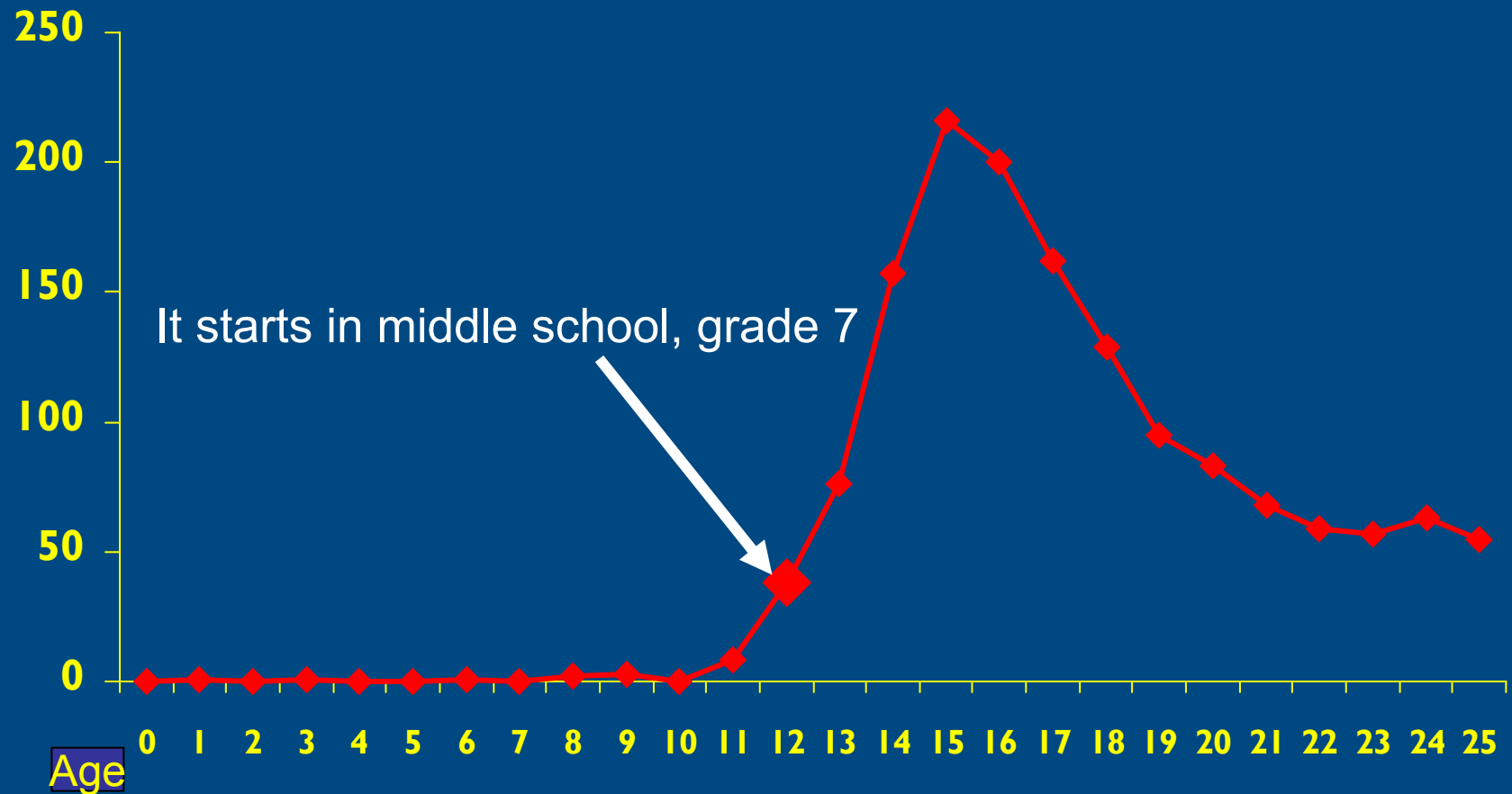
Describe: decisions about suicide prevention strategies: Intentionally self-inflicted gun shots versus poisonings



Describe: Fall hospitalization discharge disposition, by age, California 2006



Describe: large numbers provide analytic possibilities: ER visits for intentionally self-inflicted poisonings, Age 0-25 years, California 2006.



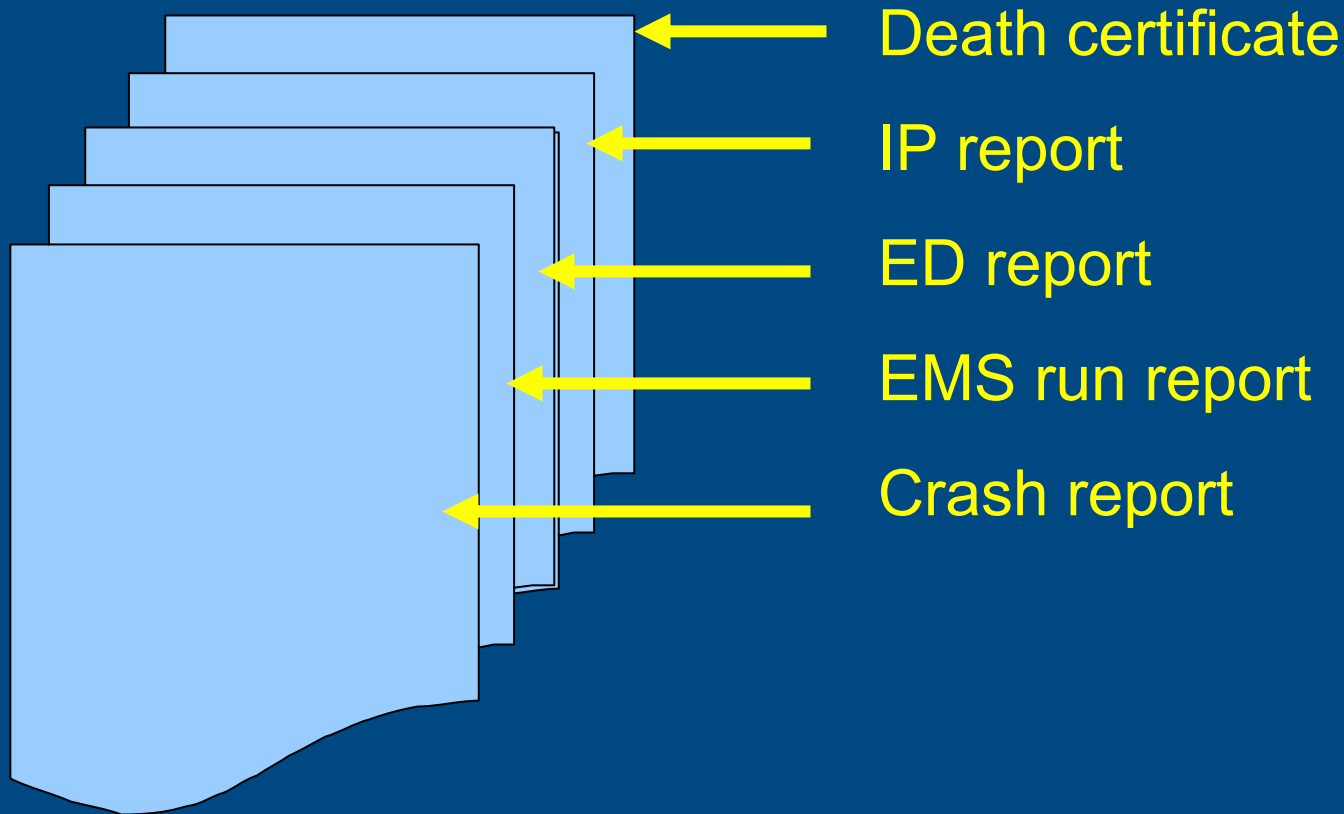
Describe: ED documents less severe but very common injuries, for example:

- Dog bites 26,179
- Non-venomous insects 22,639
- Hornets, wasps, bees 9,769
- Venomous spiders 3,519
- Hot weather 3,023
- Toxic effects of contact w/ plants 1,073
- Air guns (you'll shoot your eye out) 1,465

Contrast: sexual abuse in women age 18+ years, California 2006, according to two different sources:

- **826** seen in emergency departments
- **29,696** reporting forced sex during the previous 12 months, California Women's Health Survey

Combine: Crash Medical Outcomes Data (funded by NHTSA)



Thank you!

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